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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,725	11/26/2003	Hongxia Jin	ARC920030051USI	9783
67232 7590 09/26/2007 CANTOR COLBURN, LLP - IBM ARC DIVISION 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			EXAMINER YALEW, FIKREMARIAM A	
			ART UNIT 2136	PAPER NUMBER
			MAIL DATE 09/26/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/723,725

Applicant(s)

JIN ET AL.

Examiner

Fikremariam Yalew

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11,21-31 and 41-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11,21-31 and 41-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 05/17/2004,08/11/2006.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-11,21-31 and 41-51 have been examined.
2. Applicant's election of claims 1-11,21-31 and 41-51 in the reply filed on 07/24/2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 41-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what a "model" stand for?.

#### ***Claim Rejections - 35 USC § 101***

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 41-51 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

8. Claims 1-11,21-31 and 41-51 are rejected under 35 U.S.C. 102(b) as being anticipated by SCOTT OAKS (hereinafter referred as Scott) (Java security May 2001 XP002321663)

9. As per claim 1,21,41: SCOTT discloses a method for running a tamper-resistant application in a trusted environment, comprising: defining a trusted virtual machine environment ((See pages 268,273(i.e., Java virtual machine provides security and is therefore to be trusted) that contains a trusted dictionary for protecting data (See pages 272-273 i.e., the file system, security manager of Java); verifying the integrity of the application (See page 271-273(i.e., verify signed class); wherein, if the application is tampered with, the trusted virtual machine environment prevents the application from accessing secrets in the trusted dictionary, thus disabling the normal operation of the application(See page 272-273).

10. As per claim 2,22,42: SCOTT discloses the method wherein if the integrity of the application is confirmed, the trusted virtual machine environment allows the application to access the secrets in the trusted dictionary, thus enabling the normal operation of the application (See page 273).

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11. As per claim 3,23,43: SCOTT discloses the method wherein defining the trusted virtual machine environment comprises defining a trusted bundle for protecting a programming code of the application (See pages 272-275).
12. As per claim 4,24,44: SCOTT discloses the method wherein protecting the programming code comprises encrypting the programming code (See 273-273).
13. As per claim 5,25,45: SCOTT discloses wherein the trusted virtual machine environment decrypts the encrypted programming code using a decryption key from a media key block associated with the application (See 269-270).
14. As per claim 7,27,47: SCOTT discloses the method wherein defining the trusted bundle comprises restricting access to instruction codes of the trusted bundle (See 269-270).
15. As per claim 8,28,48: SCOTT discloses the method further comprising encrypting the trusted dictionary (See 271-273).
16. As per claim 9,29,49: SCOTT discloses the method wherein defining the trusted virtual machine environment comprises defining at least two trusted bundles; and wherein the trusted dictionary is shared between at least some of the at least two trusted bundles, to maintain communication integrity between the at least two trusted bundles (See 271-273).

***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**18. Claims 6,26,46 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCOTT OAKS (hereinafter referred as Scott) (Java security May 2001 XP002321663) in view of Levy et al (hereinafter referred as Levy) US Patent No 6,092,147**

19. As per claim 6,26,46: SCOTT discloses claims 1,21,41 as recited above. Scott does not explicitly teach the method wherein defining the trusted virtual machine environment comprises using a security chip. However Levy teaches the method wherein defining the trusted virtual machine environment comprises using a security chip (See col 2 lines 38). Therefore it would have been obvious to one having ordinary skill in the art at that time the invention was made to modify the teaching method of Levy within Scott method in order to provide security sensitive product with a VM system.

**20. Claims 10-11,30-31 and 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCOTT OAKS (hereinafter referred as Scott) (Java security May 2001 XP002321663) in view of Watson (US Pub No 2005/0204126 A1)**

21. As per claims 10,30,50: SCOTT discloses claims 1,21,41 as recited above. Scott does not explicitly teach the method wherein the application comprises a player that plays copy-protected media. However Watson teach the method wherein the application comprises a player that plays copy-protected media (See 0021,0029).

Therefore it would have been obvious to one having ordinary skill in the art at that time the invention was made to modify the teaching method of Watson within Scott method in order to enhancing security of the system.

22. As per claims 11,31,51: Scott discloses claims 10,30,50 as recited above. Scott further teach the method wherein the trusted dictionary contains one or more decryption keys to decrypt the copy-protected media (See 0040,0047).

### ***Conclusion***

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fikremariam Yalew whose telephone number is 5712723852. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Moazzami Nasser can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Fikremariam Yalew  
09/20/2007  
FA

Art Unit 2136

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9,21,07